

KANSAS STATE

U N I V E R S I T Y

Program for Agronomy Education Center

**Prepared by Facilities Planning
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Introduction

Kansas State University (KSU) is dedicated to research, education and outreach. The Department of Agronomy is recognized as a regional, national and world leader in agricultural research, teaching and extension outreach. This leadership has successfully facilitated an active research program with associated graduate student training, increased undergraduate enrollment with a high placement rate. The Department of Agronomy has effectively transferred the latest innovations in agronomic science to producers and industry partners. However, the increasing pace of change in agricultural technology has created the need for the Department of Agronomy to develop an Education Center to ensure it remains at the forefront of agricultural research, education and extension.

Current Conditions

Kansas State University currently does not have a facility dedicated to support targeted research meetings, hands-on learning, continuing education and sharing technology to agricultural producers and industry partners. The variety of topics and the size and complexity of modern agricultural equipment places unique needs on education and extension outreach. Presently, much of the hands-on plants, soils and equipment teaching/training occurs outside and can be compromised by inclement weather.

Even under benign conditions, the lack of access to modern audio-visual teaching technology makes it difficult for educators to be effective. Much of the continuing education and extension outreach is conducted at times when normal university operations tie up classroom space, technology equipment, and access to parking.

The 2008 Department of Agronomy CSREES Review recommended developing a training and education center at the Agronomy Farm to enhance the effectiveness of undergraduate teaching, technology sharing with research partners and extension offices, and related research programs. The reasons mentioned by the 2008 CSREES Review Team for that recommendation include: utilizing the Agronomy Learning Farm to full capacity, enhanced student learning, experiential education, farm-based classes, and essential platform for transfer of Extension Agronomy information. Other universities use education centers to facilitate already strong diagnostic schools. These schools include: University of Nebraska, University of Missouri, and Purdue University.

The needs for an Agronomy Education Center are even stronger today than they were in 2008. Undergraduate enrollment has climbed steadily since then with a placement rate close to 100% upon graduation. A recent USDA report predicts continued strong demand for college graduates with degrees in food, renewable energy, and the environment. Therefore, demand for continuing education of certified crop advisors, state and federal agency staff, crop insurance adjusters and other agricultural professionals is also going to increase over the next decade.

The scope of educational and outreach activities that already utilize the Agronomy Farm is extensive and reaches people from elementary school age children through professional levels. Several of these activities are part of university and national initiatives (e.g. Science and Technology Engineering and Mathematics, STEM, MANNRS, Haskell Environmental Institute, Kauffman Scholars, etc.) to reach diverse or urban audiences. Several of the tours include international delegations seeking to learn about Kansas crop production and cropping systems. Activities surveyed in 2011 with same conditions existing in 2016 included 2,922 individuals in 60 sessions or groups:

- Elementary school - 3 events with 7 sessions including 630 participants
- Junior High/High School - 7 events with 10 sessions reaching 425 individuals
- College, not Kansas State University classes - 4 groups including 146 individuals
- College, Department of Agronomy classes - 8 classes with at least 12 sessions including 918 individuals
- College, other College of Agriculture Departments - 2 classes with 4 sessions including 80 individuals
- Professional training, technology transfer - 7 events, 18 sessions including 609 individuals
- Tours for visiting professionals - 3 programs with 5 groups including 114 individuals

Other non-annual events that have been held in the past or already planned for the near future that will benefit from an Agronomy Education Center include:

- Nitrogen Use Efficiency Conference
- Wheat Workers Workshop
- Great Plains Sorghum Conference/Sorghum Improvement Conference of North America
- National Horticulture Contest
- Regional Soil Judging Contest
- Regional Weeds Contest

The Agronomy Education Center will meet today's emphasis on multi-investigator, multi-disciplinary, multi-institutional research projects requiring extensive on-site work sessions and informal interactions. This meeting space is close to KSU's main campus in an area adjacent to research fields and farms located at the north end of the KSU campus. The easy access to both educational and research areas will enhance the College of Agriculture's departments and Extension programs with related activity in crop and soil sciences. Extensive co-programming already occurs with the Departments of Agricultural Economics, Biological and Agricultural Engineering, Entomology, and Plant Pathology. In addition, potential synergies with the Northeast Area Extension Office, and their programs could increase the daily use of the facility. Currently much of the information exchange exists at off-campus Research-Extension Centers.

Project Description

The site chosen for the 6,600 square foot Agronomy Education Center is located adjacent to the Ag Research Center on Kimball Avenue across from the Bill Snyder Family Stadium. This location is adjacent to current research facilities, teaching and research fields as well as existing parking. The site is also in close proximity to existing utilities.

The Agronomy Education Center will consist of an Exhibition Hall, two multipurpose teaching rooms, restrooms, storage, mechanical spaces and a lobby. Good insulation in the exterior walls is required for energy conservation purposes and to meet current energy codes. The facility will

mostly operate during daylight hours, so it is desirable for the building to make use of daylight where possible to reduce the need for artificial lighting. The goal is to build an energy efficient, sustainable building. The space requirements are as follows:

Space Requirements	Area	Number Needed	Total Area
60x70' exhibit hall	4,200	1	4,200
20x30' Class labs	600	2	1,200
Men's Restroom	250	1	250
Women's Restroom	250	1	250
Lobby/Foyer	400	1	400
Telecom/Technology support	50	1	50
Mechanical/electrical space/circulation	250	1	250
			6,600

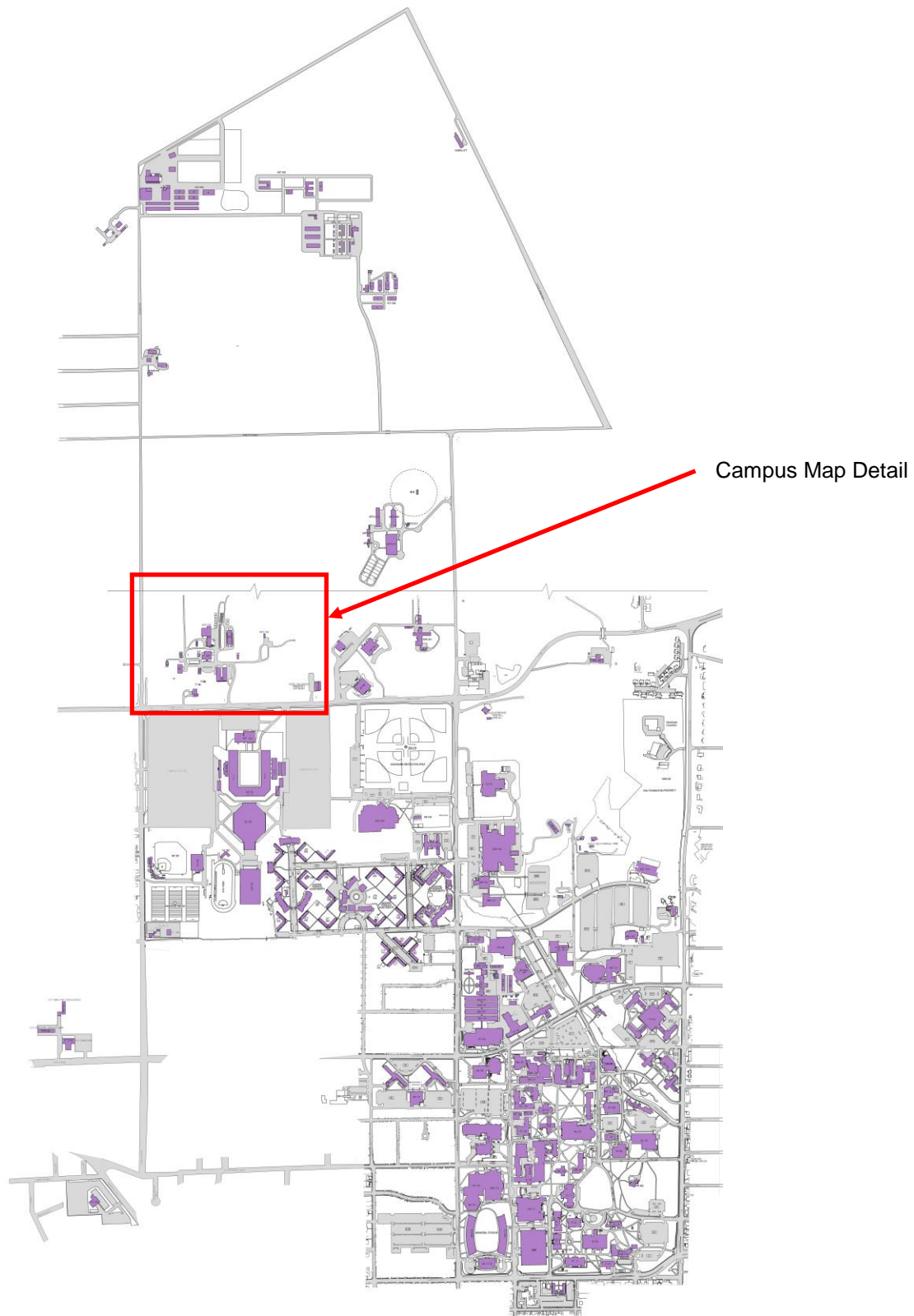
The 60'x70' Exhibit Hall will be used for equipment demonstrations and Ag Expos. A large (16'x20') overhead door must be included as well as a projection screen, ceiling mounted projector, wireless capability, and electrical outlets for vendors and other presenters. Acoustical treatments, catering access, flexible seating and flexible lighting are also required.

The two classrooms will each have a projection screen, white board, ceiling mounted projector, Ethernet, power and laptop connections as well as flexible seating for 30 people. An option is a folding wall between the two rooms to create a larger teaching space when needed.

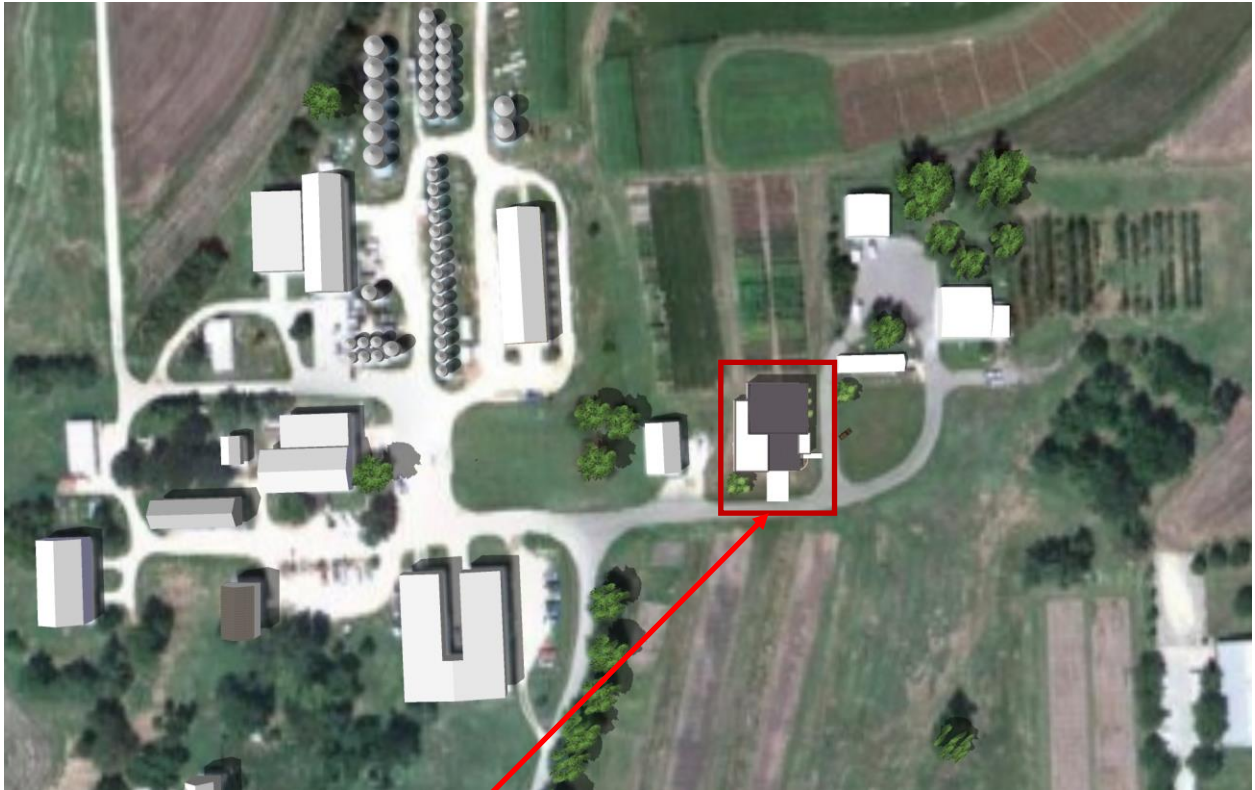
The Lobby will be used for informal gatherings and break out space between classes. As a result, the space needs to have wireless internet capability and sufficient electrical outlets.

Also needed are restrooms and mechanical rooms for the HVAC and Telecom/IT equipment. Storage for tables and chairs is desired.

Site Map



Campus Map Detail



Agronomy Education Center Site

Budget

Cost Per Square Foot*	\$125
Demolition	-
Utilities & Infrastructure	50,000
Building Construction	825,000
Fixtures, Furnishing, Equip & Misc. - By Others	-
Site Improve	25,000
Construction Subtotal	900,000
Furniture and Equipment	93,750
Miscellaneous Costs (5%)	41,250
Design Fees (10%)	82,500
Project Contingency (10%)	82,500
Fees and Overhead Subtotal	300,000
Project Budget Total	\$1,200,000

* Additional features.

\$125/sf buys a pre-engineered building with basic interior finishes, basic exterior finishes, minimal windows, no acoustical treatments, fire protection sprinkler system, insulation and HVAC system to meet required energy codes, minimal landscaping and movable wall between classrooms. Does not include pavement for parking but does allow for minimal pavement to overhead doors.

Funding

This project is funded all from private gifts.

Maintenance

Main annual costs of operations, maintenance and utilities are estimated as follows:

Description	Cost/sqft	Total
Operations and Maintenance	\$3.22 / 6,600 SF	\$21,252
Utilities	\$3.50 / 6,600 SF	\$23,100
Total Annual Cost		\$44,352

Operations and maintenance costs will be funded from departmental funds.

Timeline

Regents Approval – Spring 2017

A&E Selection – upon approval of funding source

Design and Construction Documents/state review and approvals – 3-4 months

Procurement of Construction/execution of construction contract – 1 month

Construction – 6 months